

# Airbus Freight Products in context of the crisis

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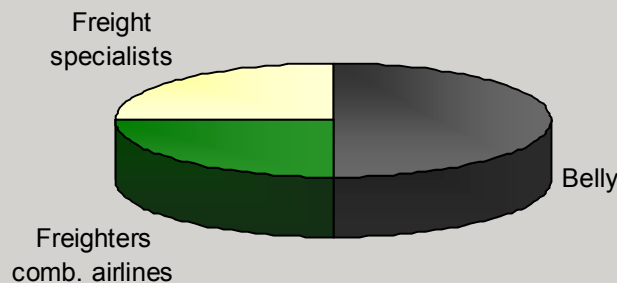
# Agenda

- Analysis of the economic crisis
- Airbus reaction and measures
- Airbus products in context of the crisis

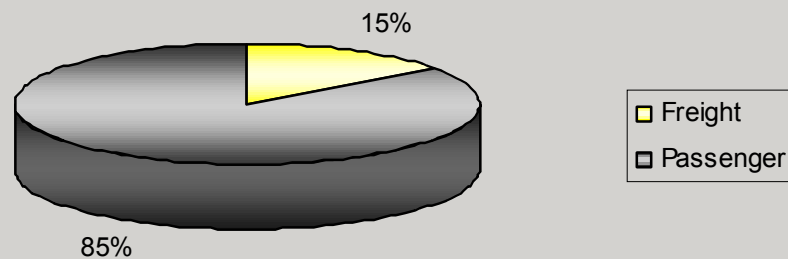
# Overview

## Of all FTKs

- 75% are performed by combination carriers
  - 50% are performed in the belly compartment of passenger aircraft
  - 25% are performed by freighter aircraft operated by combination carriers
- 25% is handled by integrated express operators and major all-cargo airlines



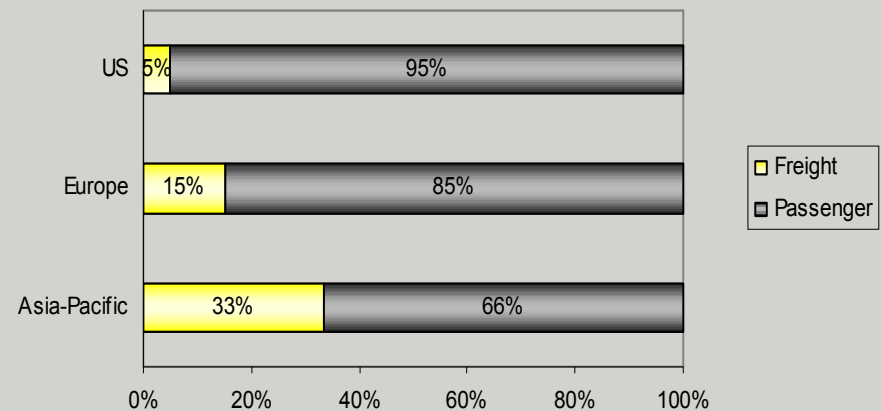
# The importance of air freight



Typical airlines earn around 15% of their Revenue from freight operations

In the Asia-Pacific region, airlines generate one third of their revenue from cargo

United: 5.2%    LH: 17.1%    SIA: 26%  
Cathay: 33%

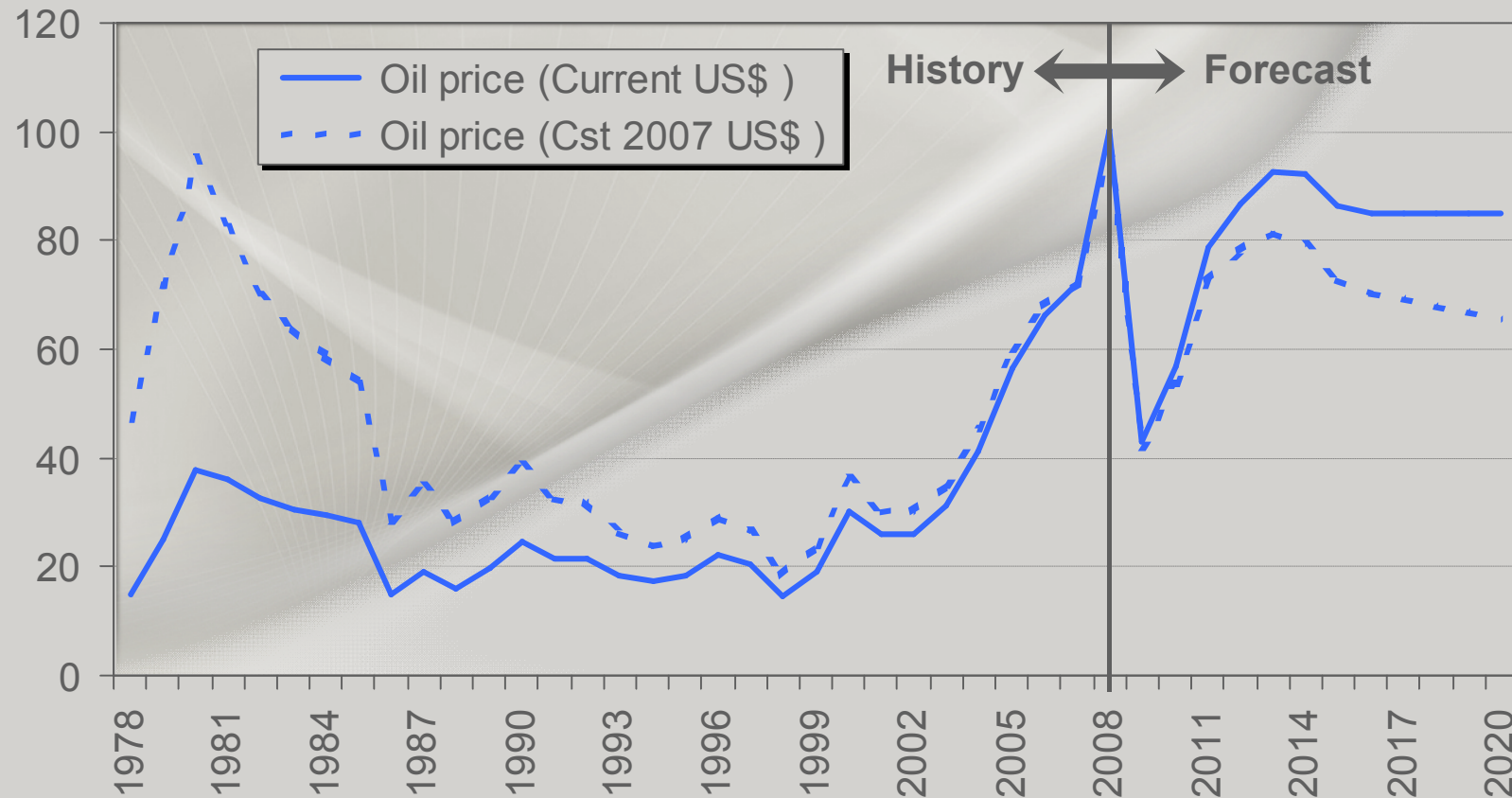


Source: ACMG

# A medium term perspective shows that cheap oil is over

About 70% of all freighters are converted passenger aircraft

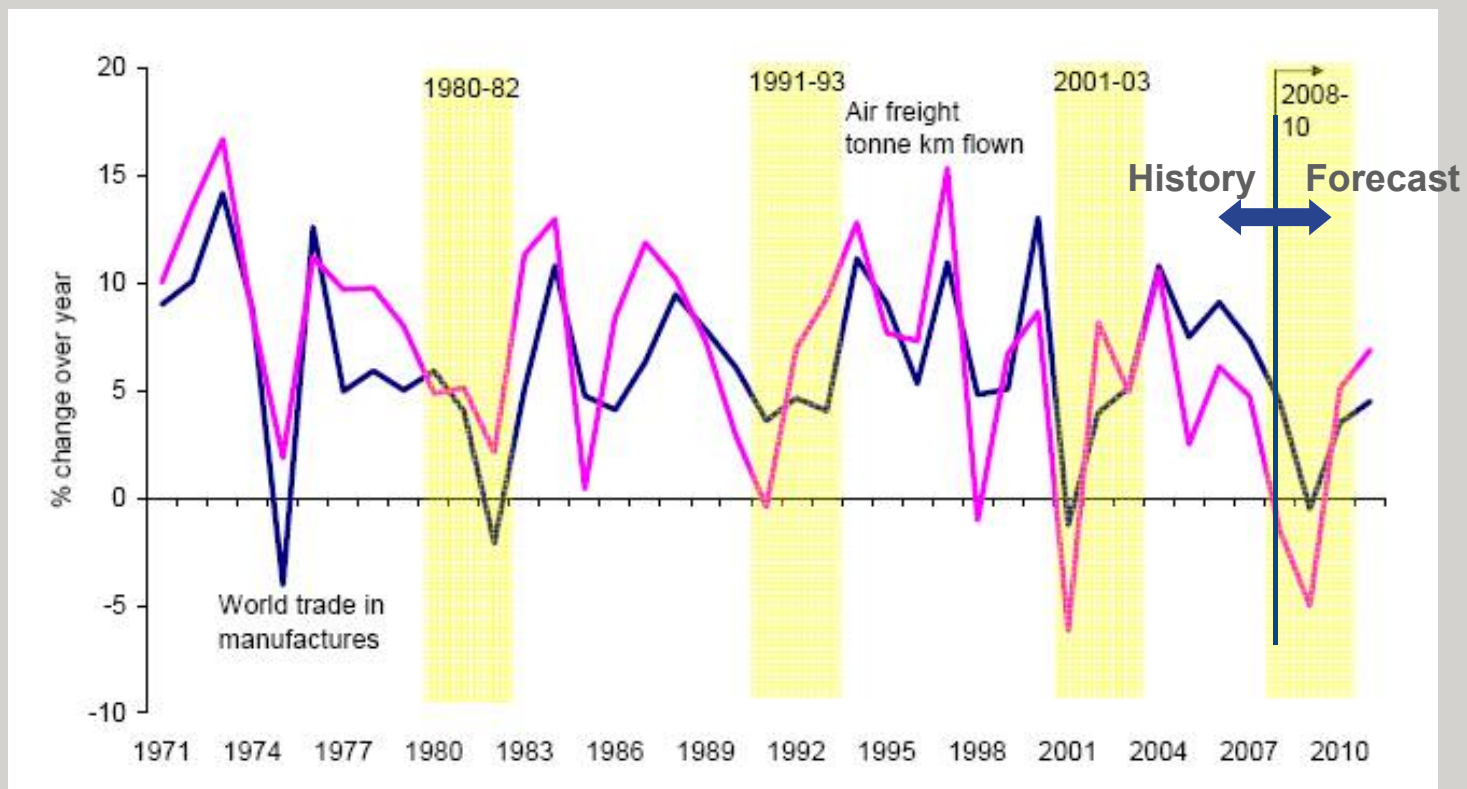
Oil price (US\$ per bbl)



**\$80-\$100 per bbl expected from 2011**

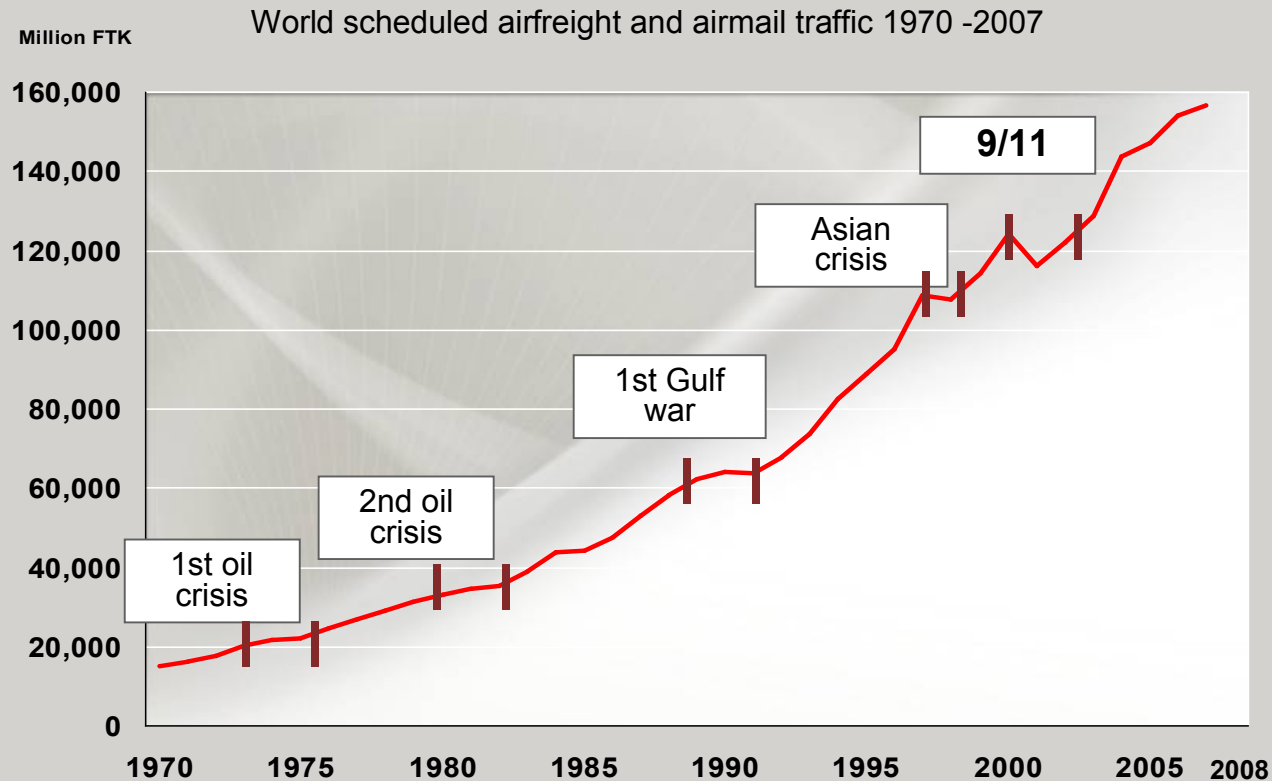
# Air freight is closely linked to the economy

## Global air freight tonne kilometers flown and world trade



Source: ICAO, IATA

# The good news is: Air cargo traffic is resilient



**Previous crises have been followed by strong growth**

Source: ICAO & IATA

Apr-2009

FAA Forecasting Conference

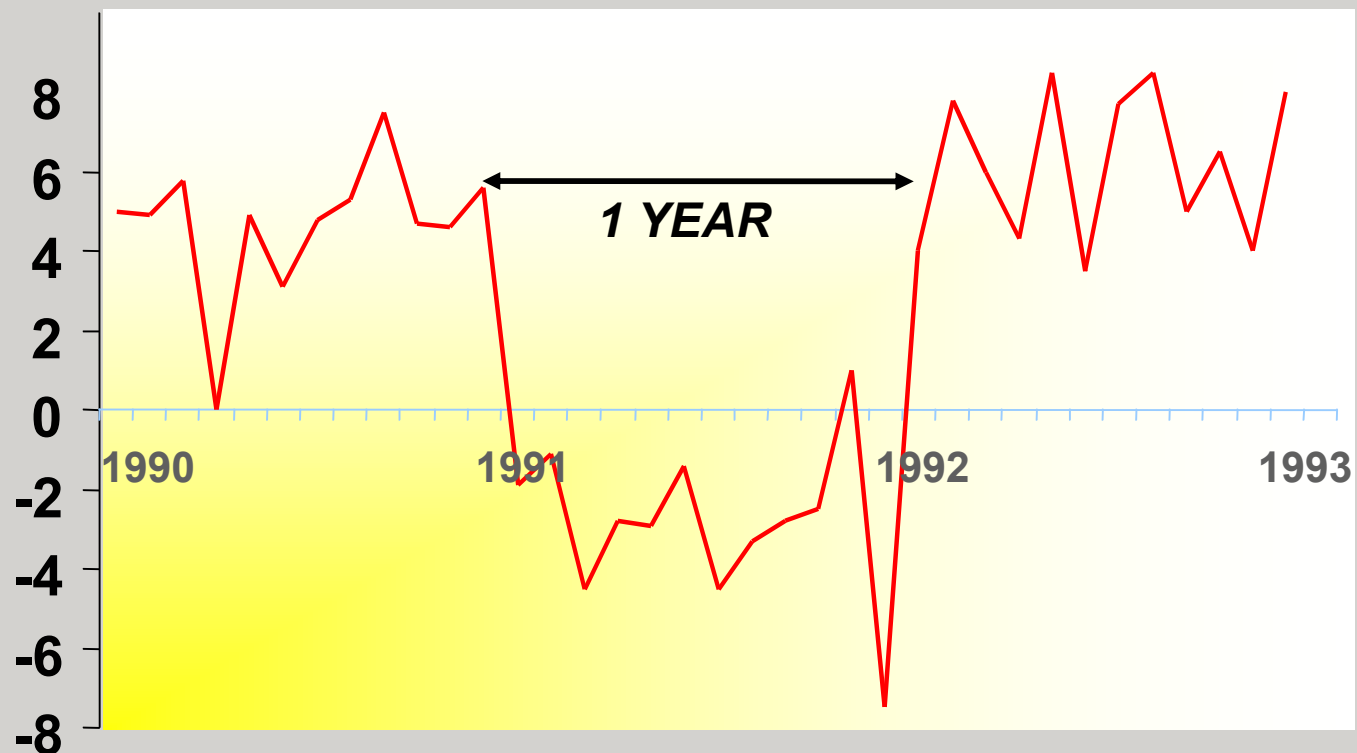
Airbus Confidential



# Looking back – after the Gulf crisis traffic recovered in one year

## *A recovery trend after one year*

International scheduled FTKs  
Growth rate - % \_



Source: IATA WATS

Apr-2009

FAA Forecasting Conference

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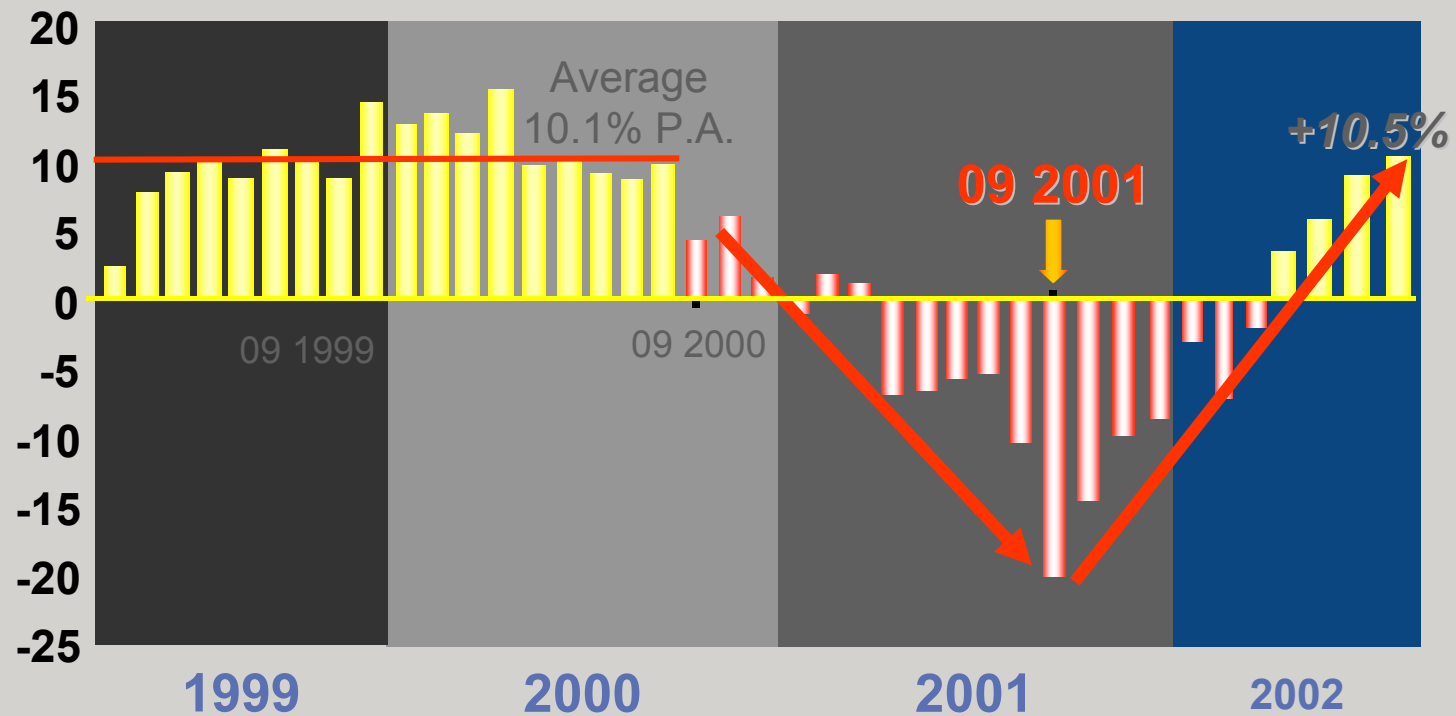




# Looking back - Post 9-11, 2001 ...

*A crisis of unprecedented severity...*

International FTKs - month on month growth - %



Source: IATA-MIS

Apr-2009

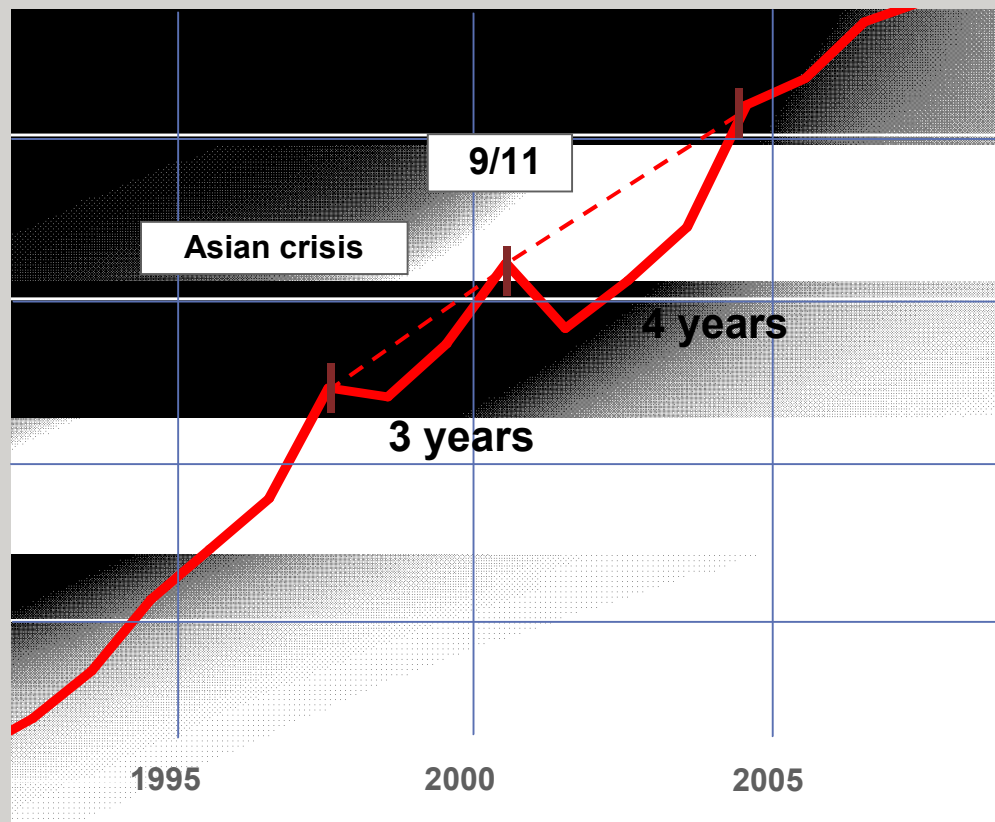
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# Strong recovery bringing traffic back to historical trend

World scheduled airfreight and airmail traffic 1970 -2007

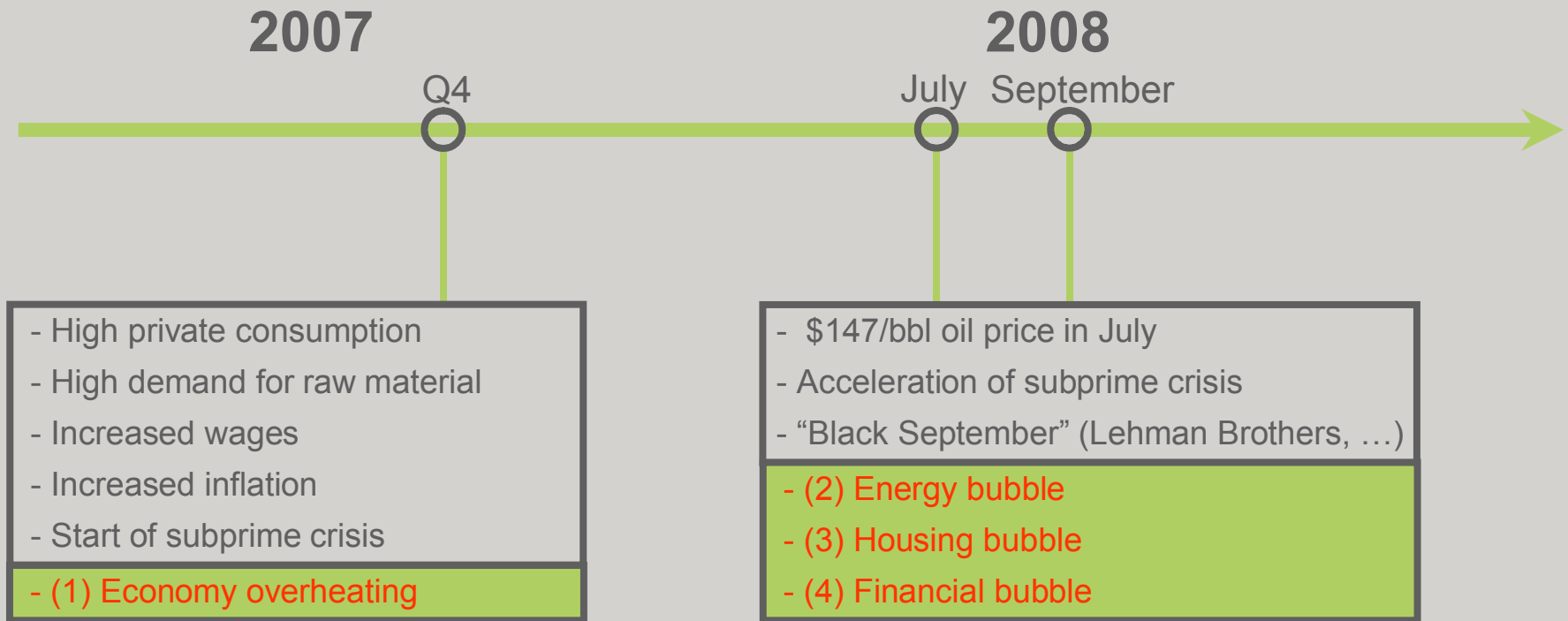


**After 3 to 4 years, traffic has fully reached its expected level**

# Current crisis - causes of the financial meltdown

- Historically low interest rates resulted in a large amount of global liquidity
- Low interest rate fueled a global housing boom
- Financial deregulation and innovation offered less creditworthy borrowers a chance to buy homes
- Financial innovation encouraged explosive growth of debt securitization  
(packaging mortgage sold globally to hedge fund, mutual fund, ...)
- Regulators and rating agencies too complacent about risk associated with surge in securities backed by sub-prime mortgages
- Borrowers and lenders assumed that home prices will continue to increase
- Large high risk investment and lack of disclosure stopped bank to bank lending

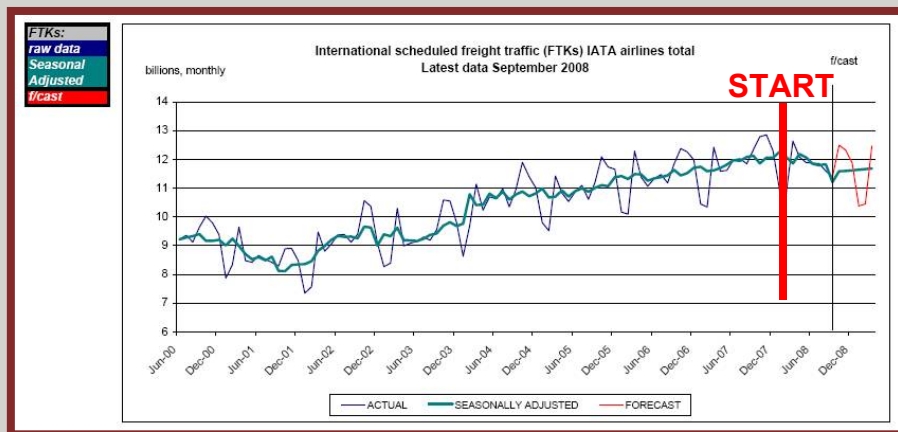
# Crisis timeline



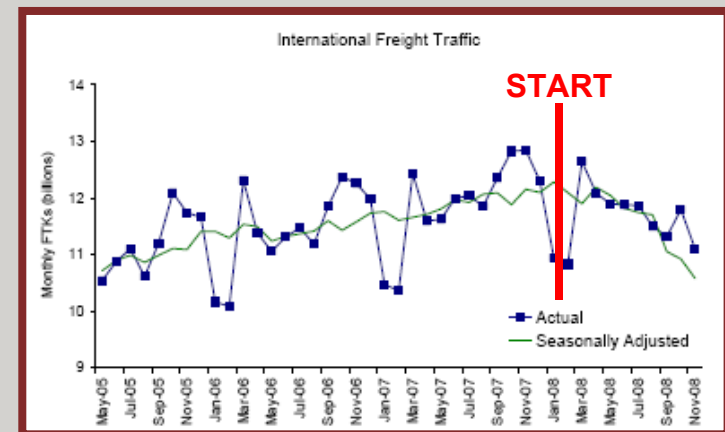
- Any of these 4 events could have led to a recession
- All 4 happened in 07/08 with (3) and (4) at the same time
- (3) and (4) burst led to a rapid deepening of recession

# The global economic situation has strongly affected air cargo IATA figures and analysis

**November 2007 vs. November 2008:  
13.5% FTK drop, only exceeded by post 9-11 recession.**



**Historic development FTK 2001 – 2008**



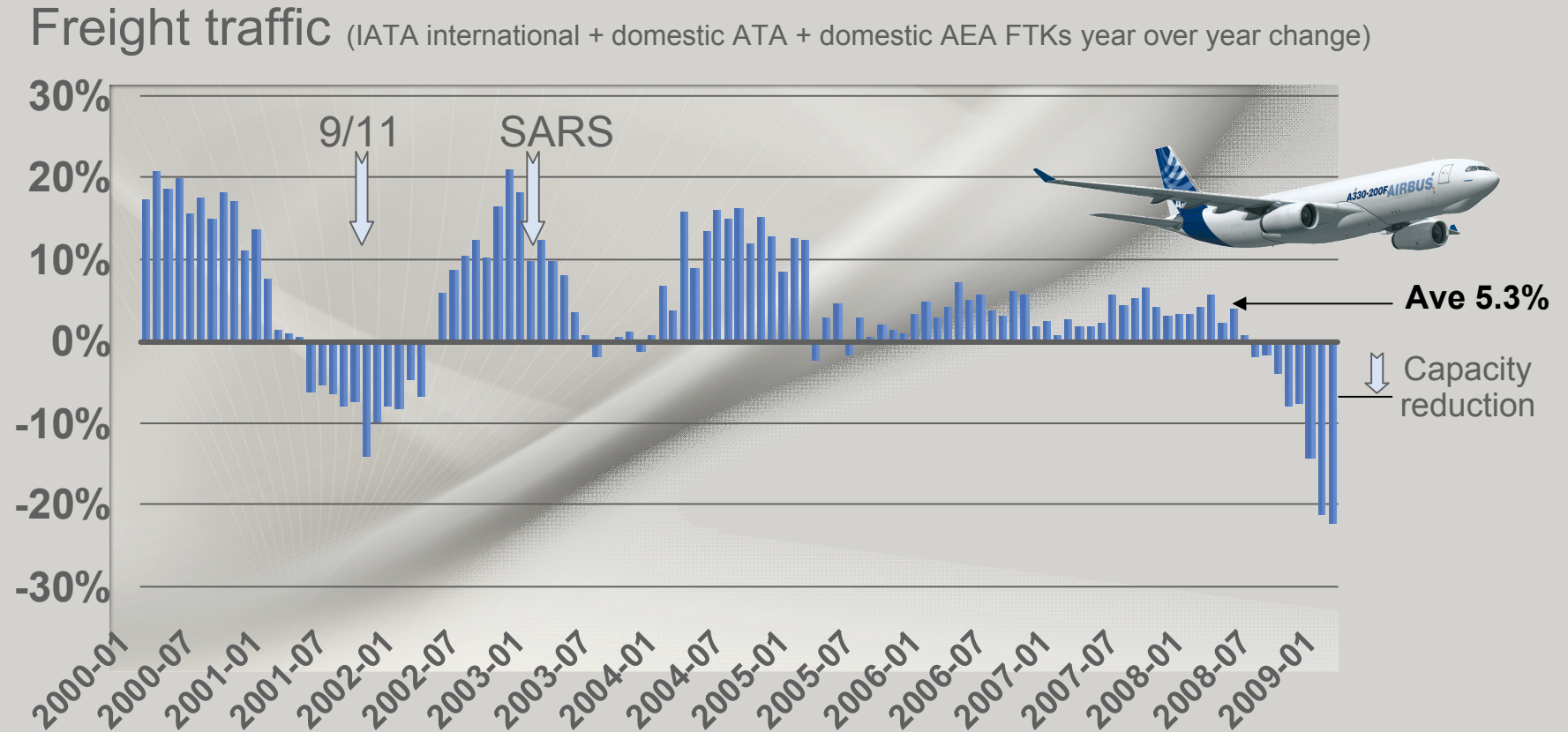
**Recent development FTK 2008**

**IATA gives 3 explanations:**

- 1. Companies react to recession by cutting output and supplying demand out of inventories**
- 2. The ongoing credit crunch induces shortage of trade credit**
- 3. General fall of business confidence and psychological factors**

Source: IATA Economics 2008

# Freight traffic development



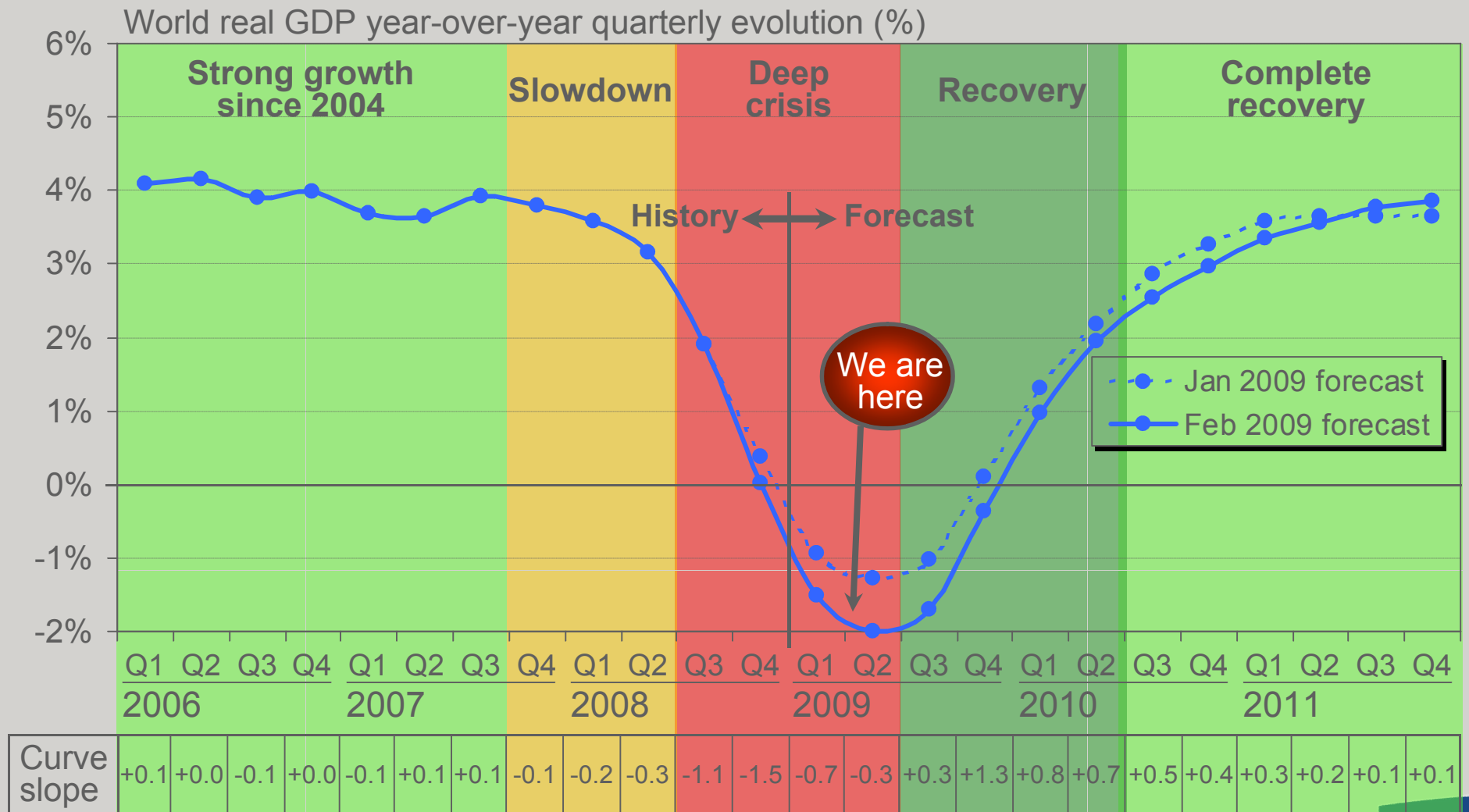
**Cargo traffic down 22%, but capacity reduced by only 6%**

# 5 forces will drive global economic recovery

- Record low interest rates and unorthodox monetary policy stimulus  
(e.g. the US Federal Reserve buying mortgage-backed securities)
- Sharp drops in commodity prices, which help importing countries
- Inventories reaching a low
- Big bank rescue packages
- Fiscal stimulus, especially in the US and China

# Economists anticipate a technical recovery\* by 3Q2009

\* Economy starts growing above the most recent trend





# The light at the end of the tunnel?

Quote of DG and CEO Giovanni Bisignani in ATWonline Friday 27 March 2009:

.....

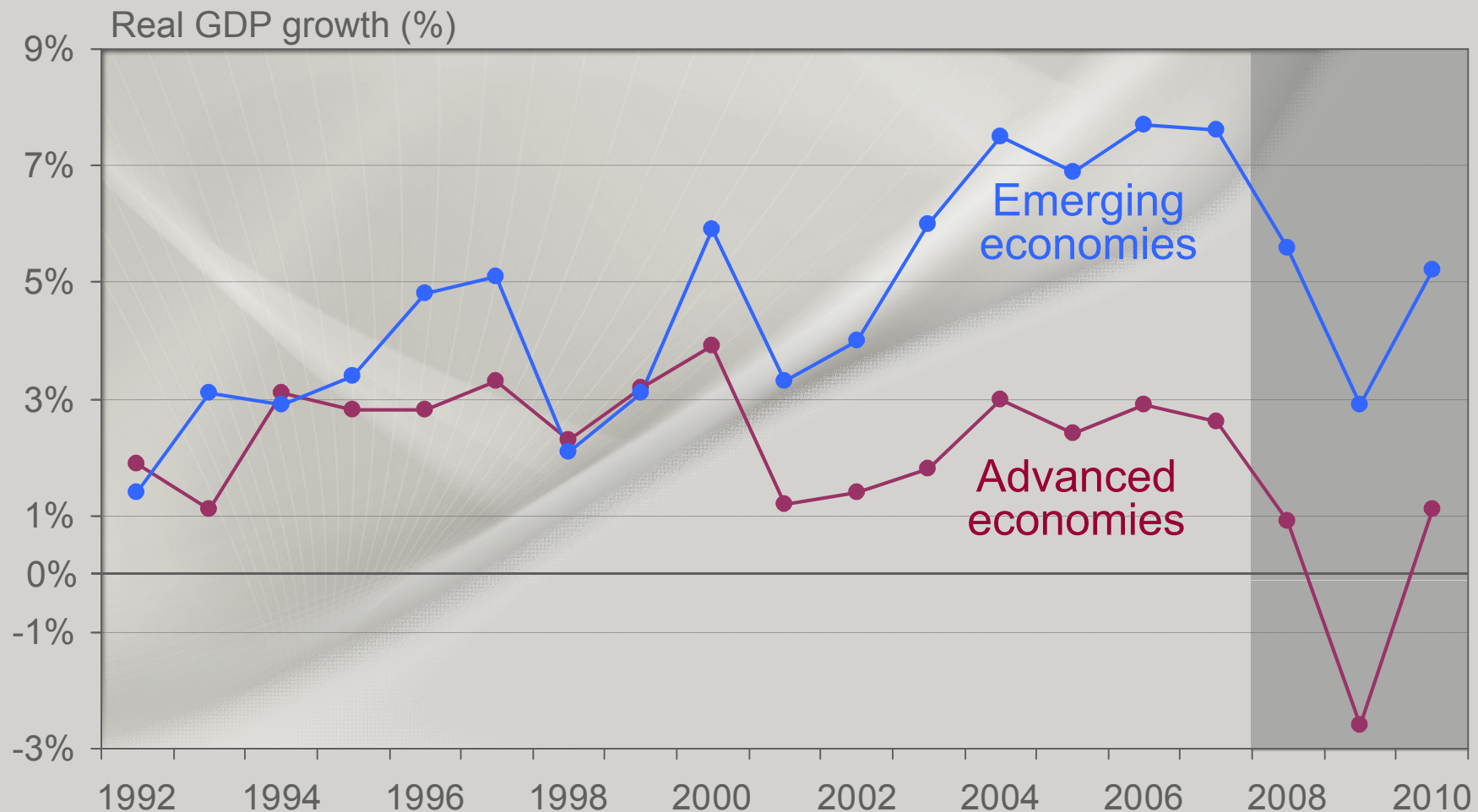
The steep cargo traffic falloff that began last summer continued, "with extremely weak demand. . .as a result of the collapse in international trade in goods and the much lower shipment of components by manufacturers," the organization said. "However, the level of airfreight appears to have found a floor over the past three months."

Bisignani cautioned, "We may have found a bottom to the freight decline, but the magnitude of the drop means that it will take time to recover."

....

**....only time will tell**

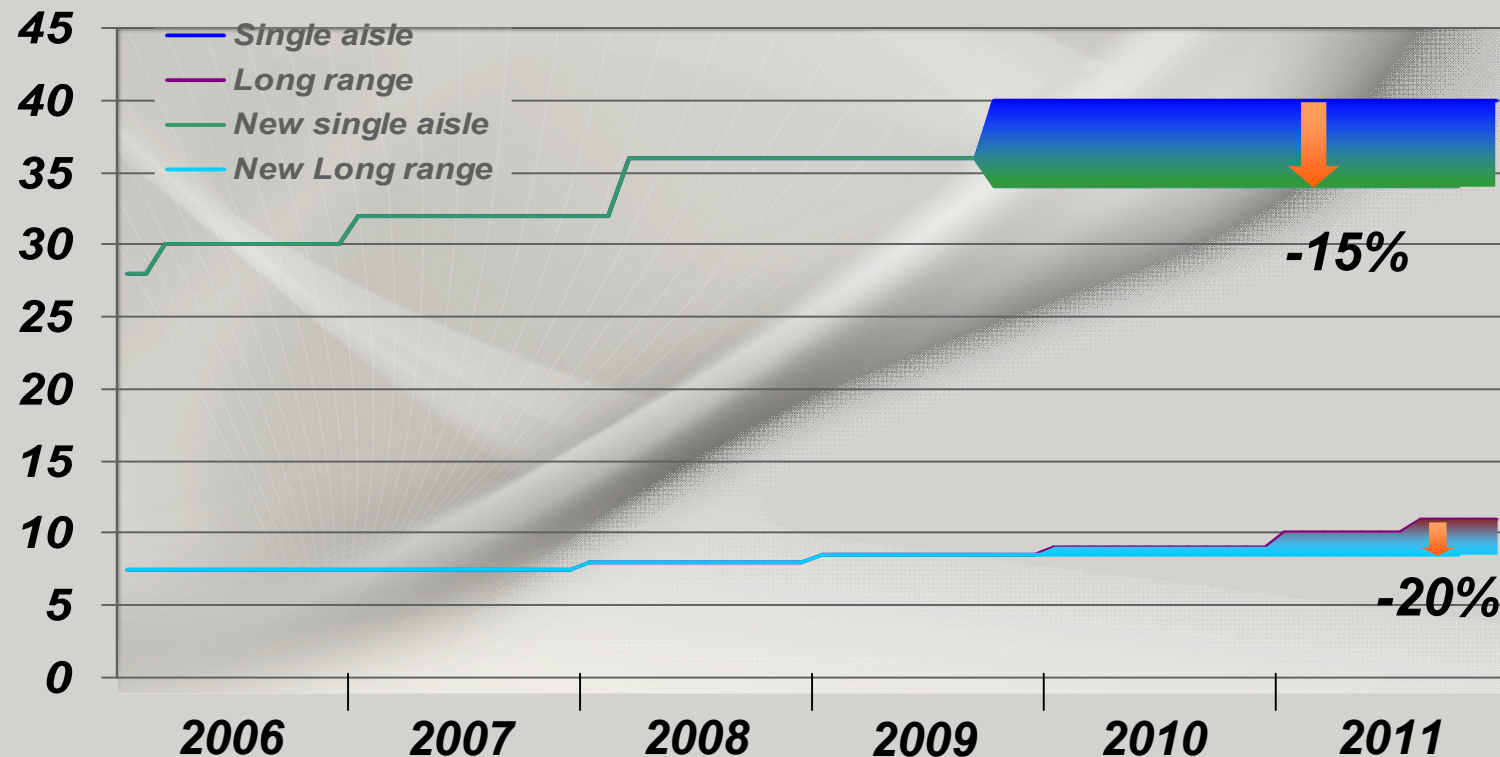
# Still a Two-Speed World with Emerging economies less impacted by current downturn



# Airbus reaction to the crisis

- Help customers to get access to financing
- Work with customers to adjust delivery streams
- Production rate adjustments

# Airbus reaction to the crisis - Responsible rate adjustments



**Continuous monitoring and regular reviews**  
**Adjustments to market conditions**

# Airbus products in context of the crisis

## Building a family of freighters

### A300-600R / A310-300 P2F



**Regional operations:**

Up to 48t (105,000lbs) / Up to 3,300nm

### A330F



**Medium to long-range operations:**

Up to 69t (145,000lbs) / Up to 4,000nm

### A320 / A321 P2F



**Feeders:**

Up to 27t (60,000lbs) / 2,000nm

### A340-300/ A330-300 P2F



*Product development study*

2000

2010

2020



### A380F

**Long-range high payload operations:**

Up to 158t (330,000lbs) / Up to 5,800nm

*Subject to re-launch*



### A350F

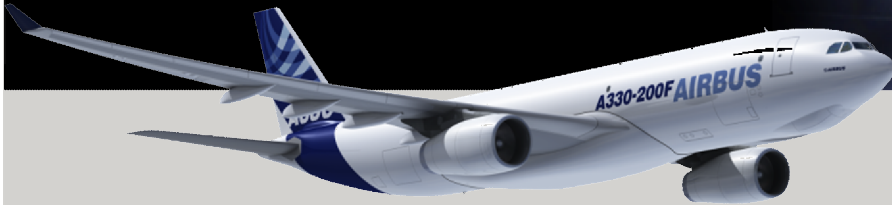
**Long-range operations:**

Up to 90t (200,000lbs) / 5,000nm

*Product development study*

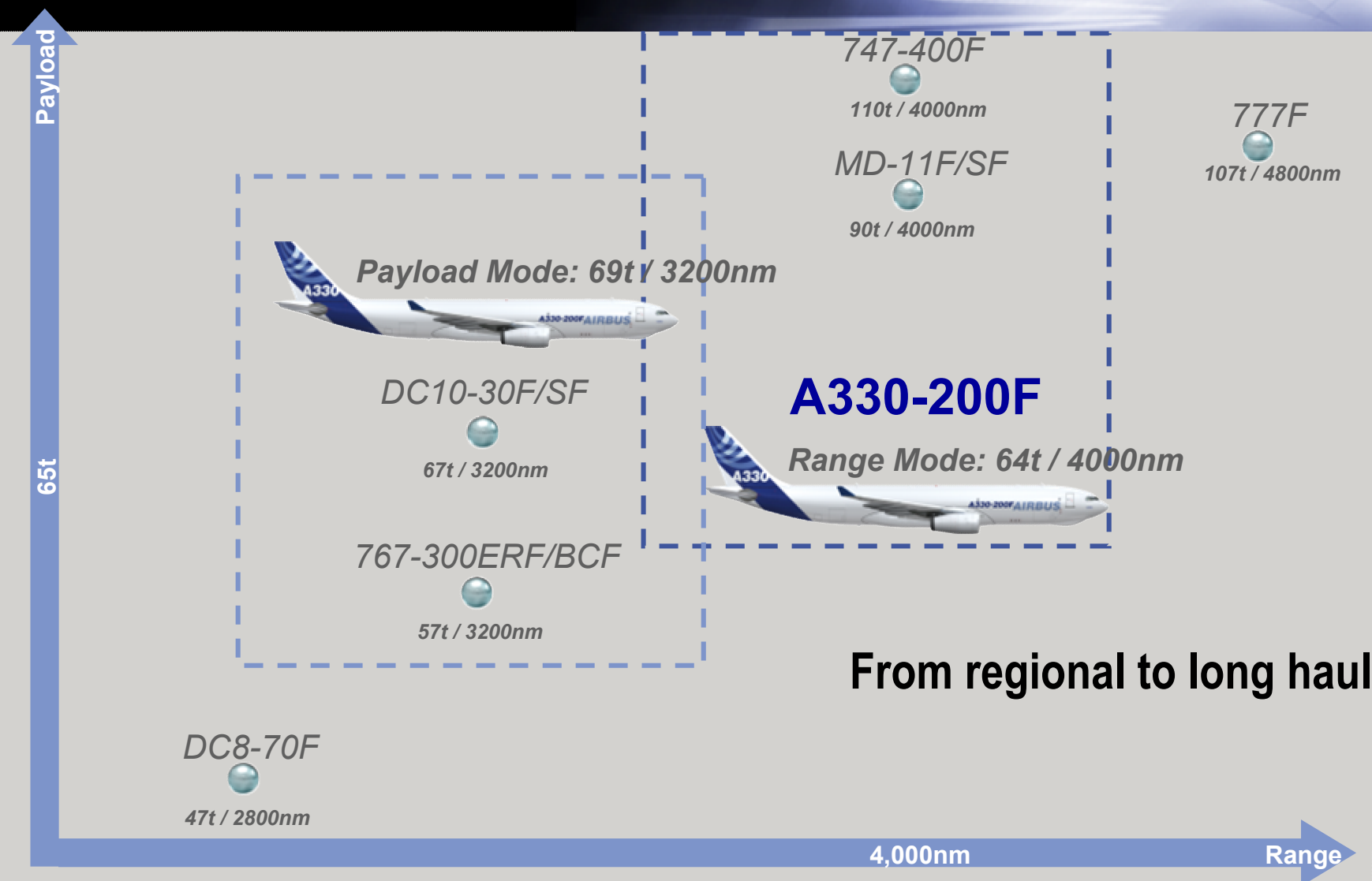
*P2F: Passenger to Freighter  
Dates are for reference only*

# A330-200F Flexibility Built-In



	RANGE MODE	PAYLOAD MODE
MTOW	233 t	227 t
MLW	182 t	187 t
MZFW	173 t	178 t
MFC	139,090 litres	139,090 litres
Engines	PW 4000 RR Trent 700	
Engine thrust	68 to 71.1 klb	
Max structural payload (gross)	64 t	69 t
Range capability	4,000nm	3,200 nm

# A330-200F - The Versatile Freighter

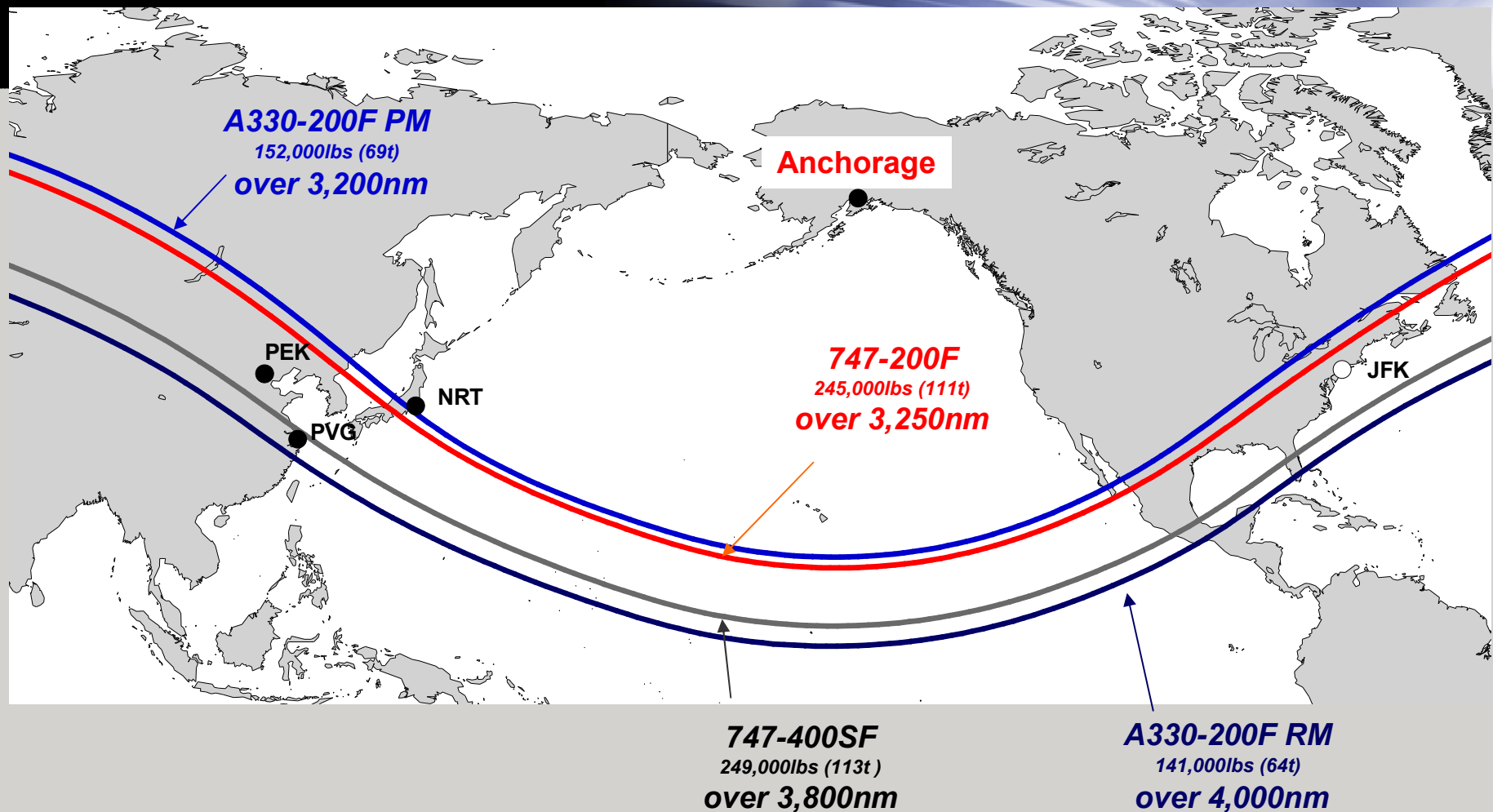


From regional to long haul



# A330-200F mid-sized freighter with 747F range

## Full loads from Asia

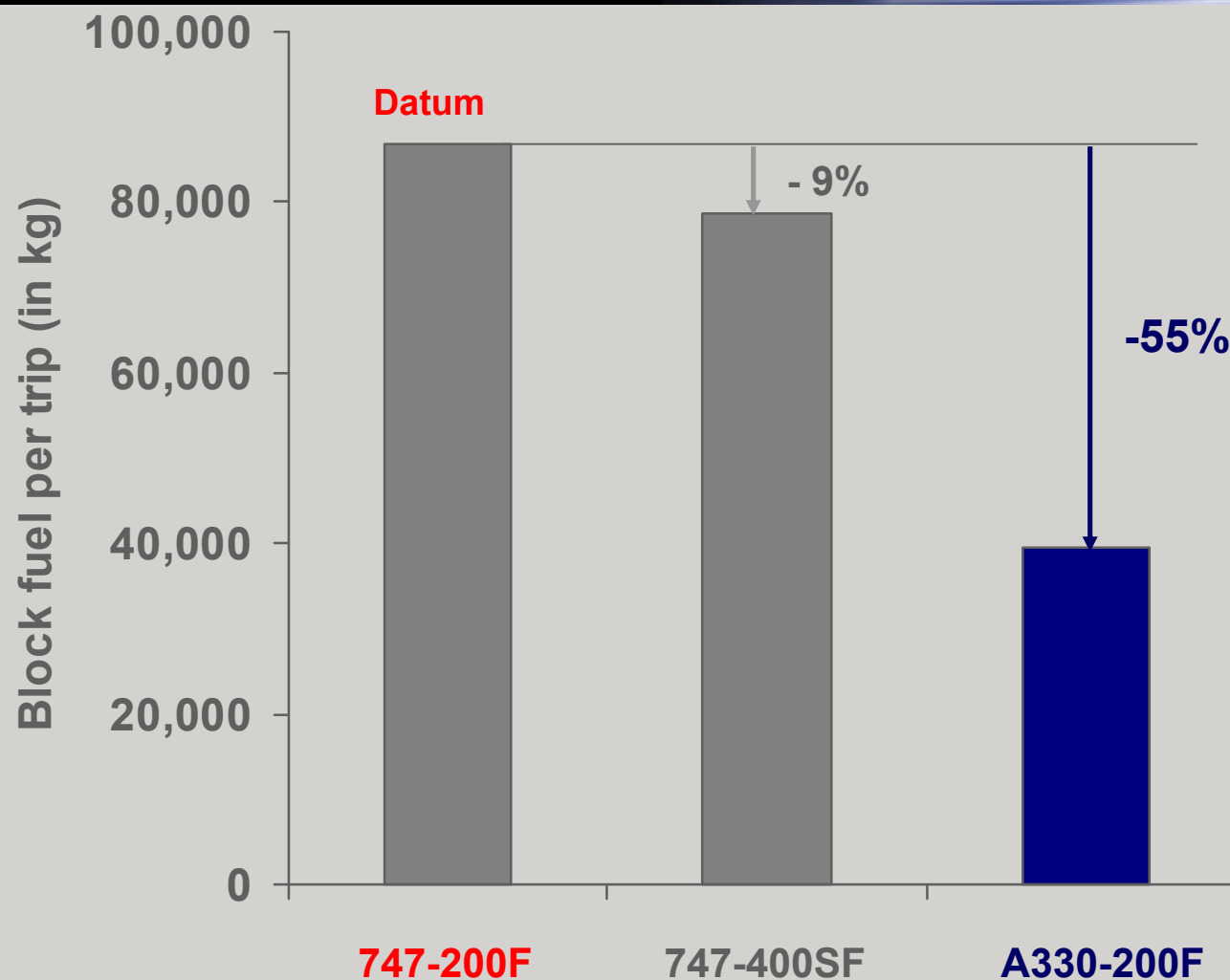


**A330-200F allows for easy integration into the existing 747 networks**



# A330-200F has 55% lower fuel burn per trip

NRT to ANC (~3,000nm)



## Fuel burn per BH:

747-200F 28,724 lbs

747-400SF 26,177 lbs

A330-200F 12,641 lbs

**16,000lbs**  
**less fuel burn per BH**

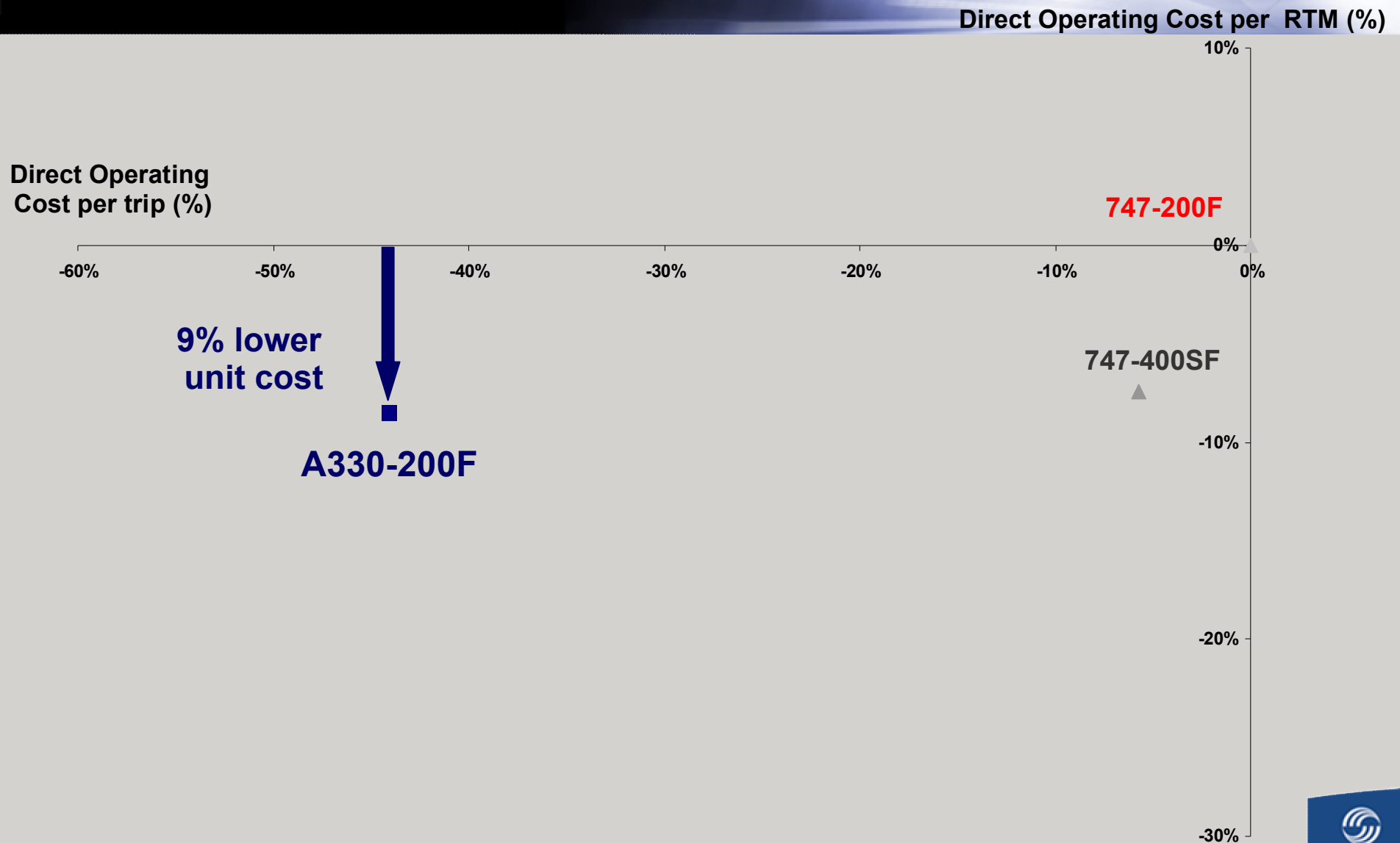
Fuel burn per ton

Datum

-11%

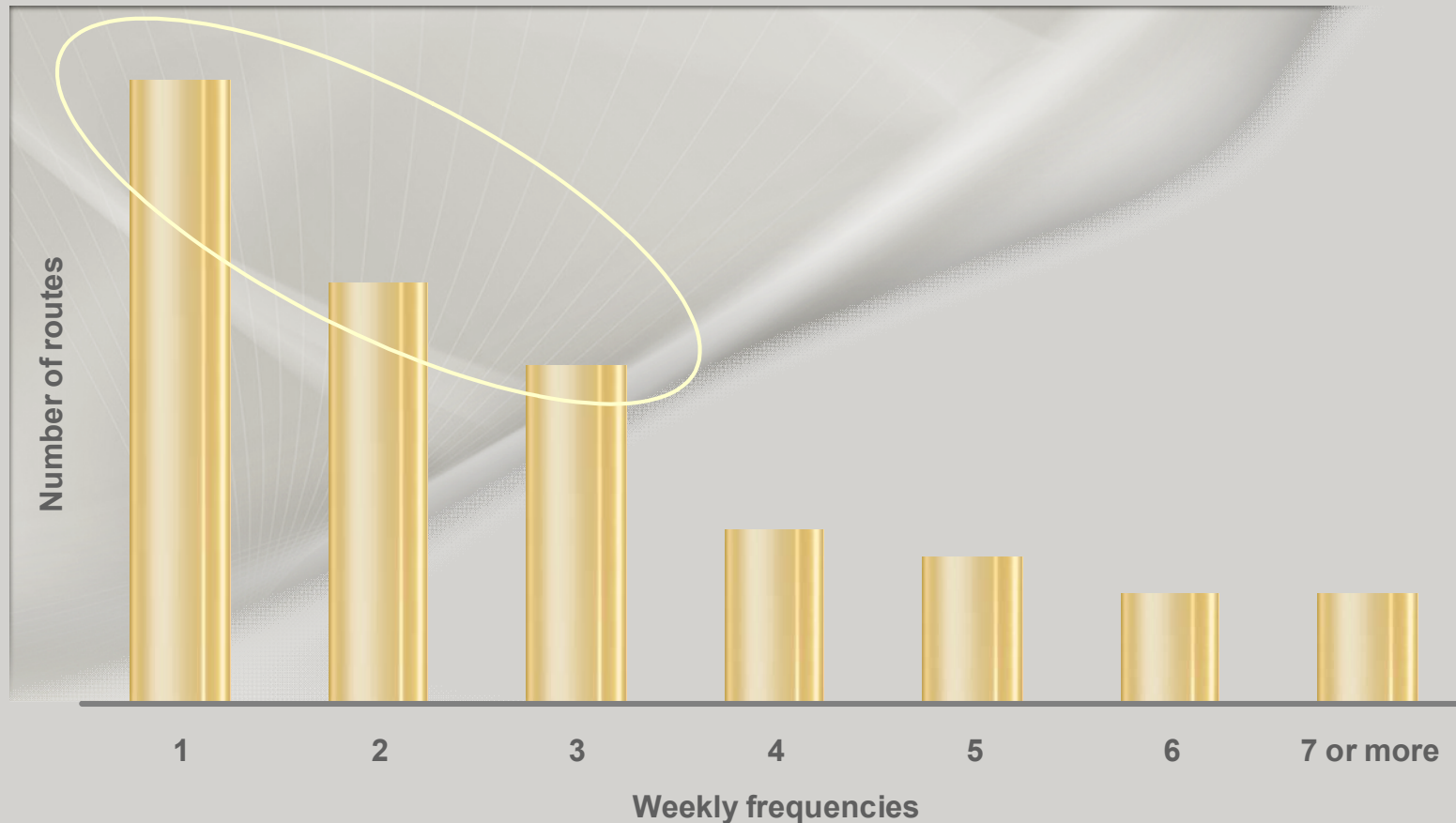
-26%

# A330-200F has 9% lower Direct Operating Cost per ton NRT to ANC (~3,000nm)



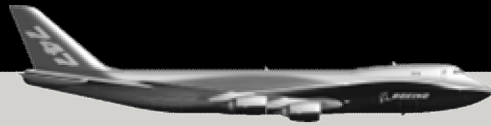
# 747F low frequency operation

*Sample of 747F routes from 28 747-200 and 747-400 freighter operators. A direct route is defined as a route with no intermediate traffic stops.*



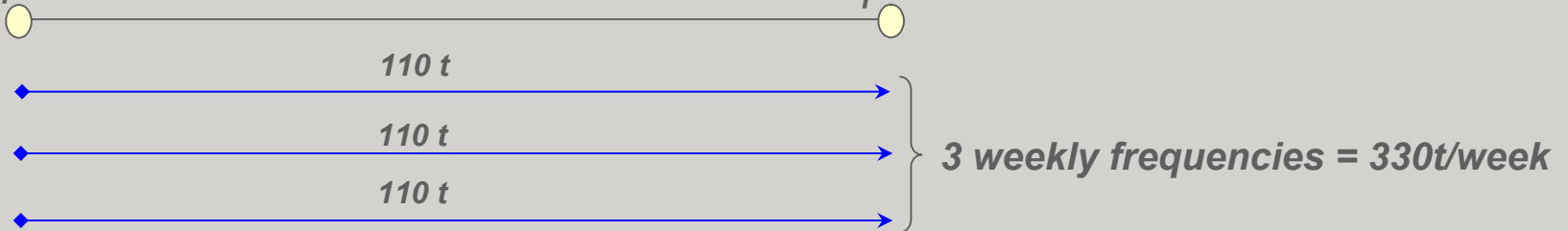
***72% of direct routes are performed with 3 or fewer weekly frequencies***

# A330-200F Better services and increased revenue potential



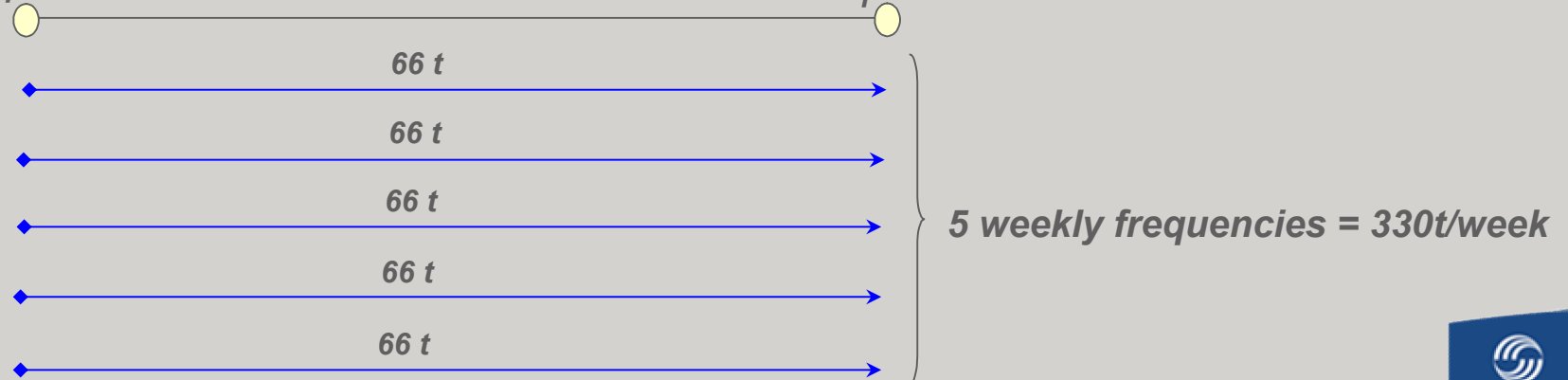
*Airport A*

*Airport B*



*Airport A*

*Airport B*

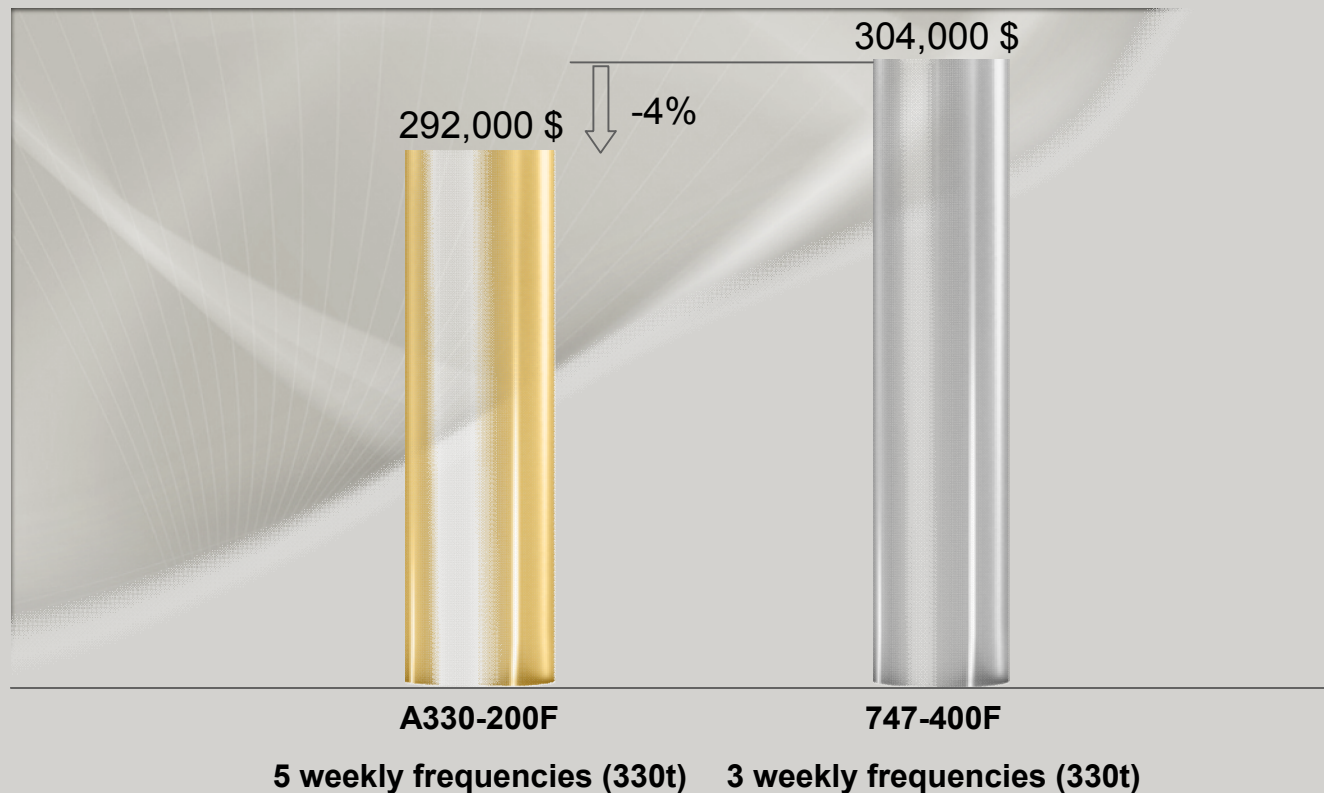


**5 frequencies per week  
instead of 3:  
equal capacity, lower  
costs, higher yields**

# A330-200F: Better services and reduced costs

## Weekly operating costs

3,000nm - Fuel: \$3.50 per USg



**Increasing the number of frequencies with the A330-200F offers better service and increases yields while controlling costs**

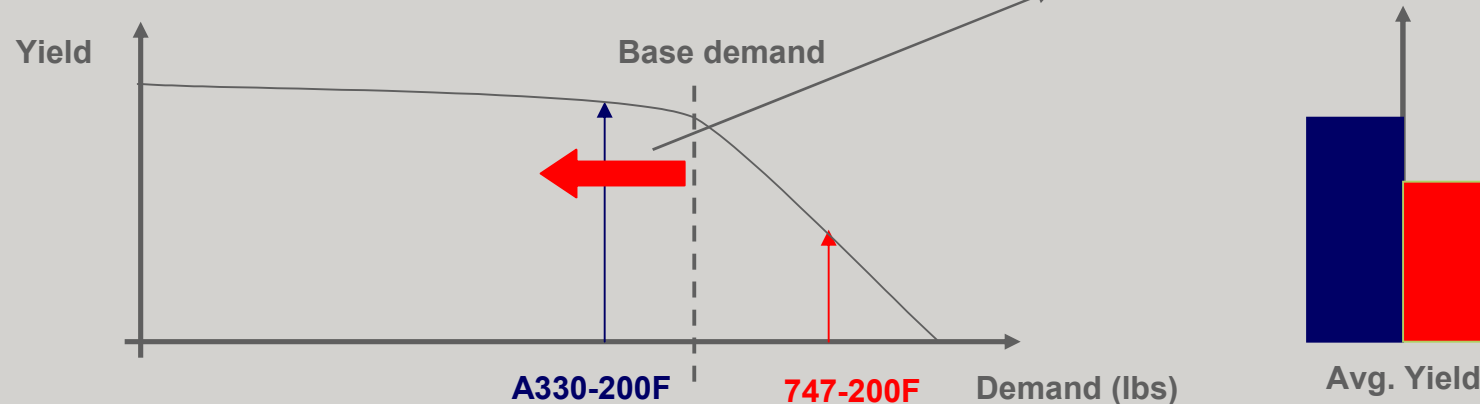
# A330-200F offers to improve yield

## 1) Flying more frequencies

in markets where a 747-200F can be filled at constant yields

- Better service to customers e.g. forwarders
  - The A330-200F offers to increase frequency at the same direct operating cost offering
    - More regular service
    - Easier recovery for shipments left behind
    - Time definite product offering (same trend as ocean freight)
- Resulting in better cargo yields

## 2) Higher average yields



**Economic downturn = smaller demand**  
**A330-200F is more easily filled**  
**= Risk protection**

# A330-200F - Flexibility and low risk

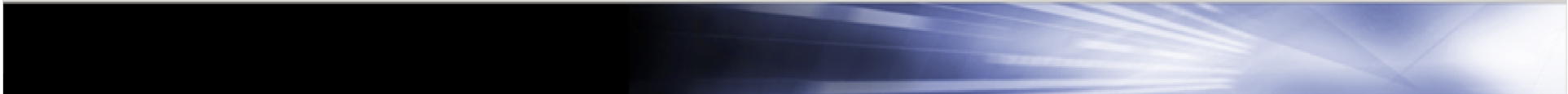
## The A330-200F offers

- Replacement of uneconomic medium size freighters
- Medium size capacity with 747F range
  - Attractive operating cost
  - Increase frequencies
- Higher yields due to better adaptability to market size
- Low risk solution
  - during economic downturn
  - for starting up new routes

# Conclusion

- Air cargo might have found the bottom of traffic reductions
- Airbus has reacted to the crisis and adjusted the production rates
- Airbus is going to build up a family of freighters. The A330-200F offers a flexible solution to replace older medium and large long haul freighters and it is a risk insurance in recession times.





# Modern, mid-size freighter rational:

A better answer to riskier markets

- Recession / Increased competition
- High fuel prices & declining yields
- Imbalanced cargo flows
- Seasonality of cargo traffic
- Development of new markets (Route opener)
- Frequency improvement
- DC10-30F replacement

